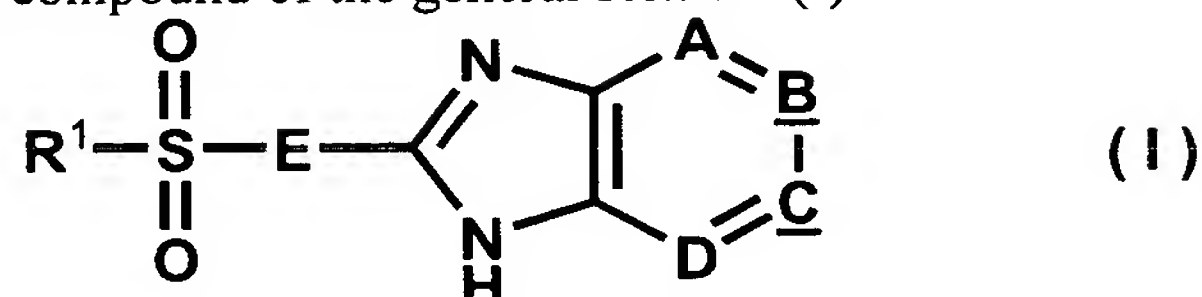


## WHAT IS CLAIMED IS:

1. A compound of the general formula (I):

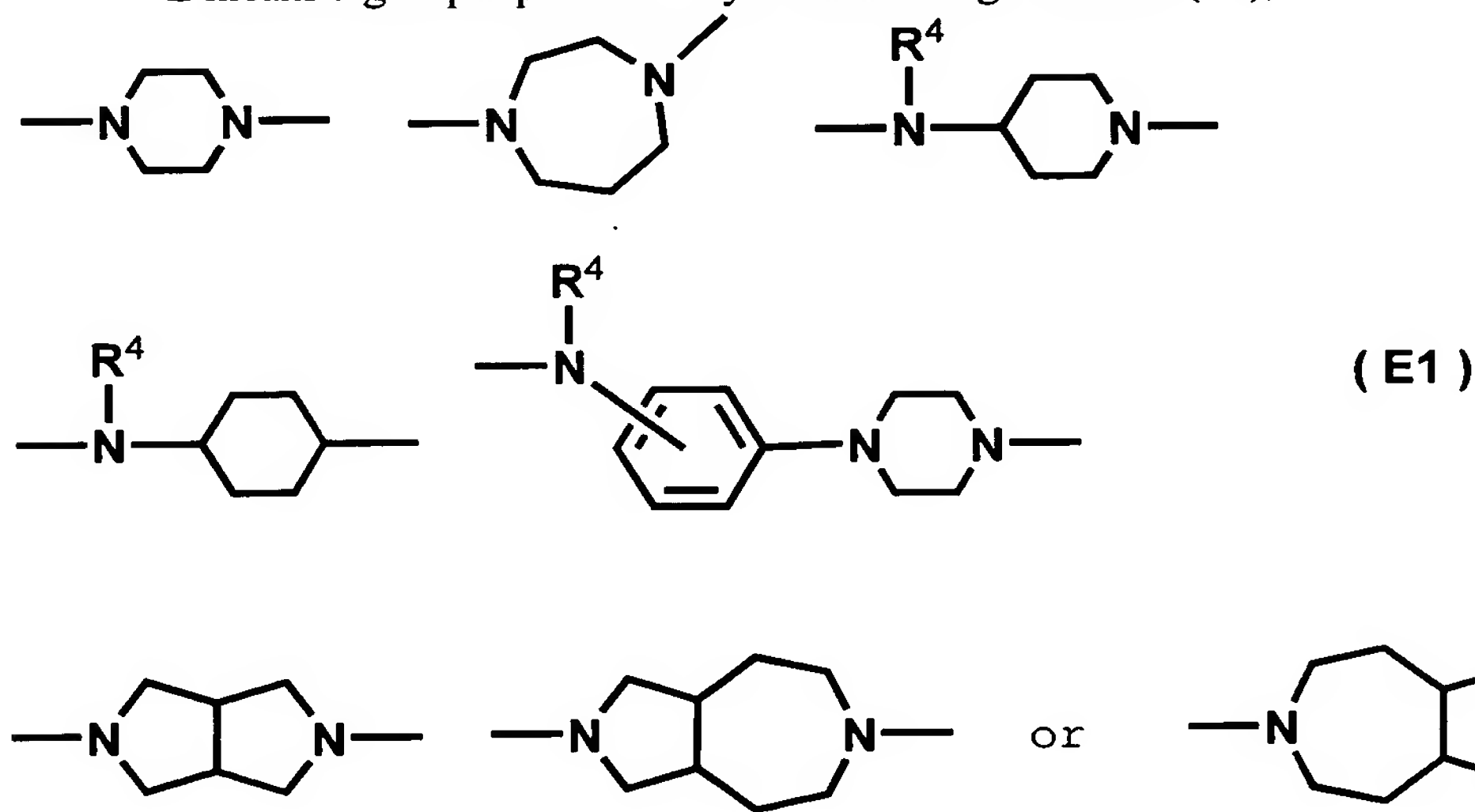


- 5                    wherein A, B, C and D each independently mean a methine group or a nitrogen atom, said methine group optionally having a substituent(s) selected from the group consisting of a halogen atom, a cyano group, a lower alkyl group, a C<sub>3</sub>-C<sub>9</sub> cycloalkyl group, a halo-lower alkyl group, a hydroxy group, a lower alkoxy group, a halo-lower alkoxy group, a lower alkoxy carbonyl group, a lower alkylsulfonyl group, a lower alkylsulfonyloxy group, a group represented by -N(R<sup>2</sup>)R<sup>3</sup>, and a group  
10 represented by -Q<sup>1</sup>-Ar<sup>1</sup>, with at least one of A, B, C and D meaning the methine group;

- Ar<sup>1</sup> means an aryl group or a heteroaryl group, each of which may optionally have a substituent(s) selected from the group consisting of a halogen atom, a nitro group, a hydroxy group, a lower alkyl group, a halo-lower alkyl group, a hydroxy-lower alkyl group, a C<sub>3</sub>-C<sub>6</sub> cycloalkyl group, a lower alkenyl group, a lower alkoxy group, a halo-lower alkoxy group, a lower alkylthio group, a lower  
15 alkylsulfonyl group, a carboxy group, a lower alkanoyl group, a lower alkoxy carbonyl group, a lower alkanoylamino group and a group represented by -Q<sup>2</sup>-Ar<sup>2</sup>;

- Ar<sup>2</sup> means an aryl group or a heteroaryl group, each of which may optionally have a substituent(s) selected from the group consisting of a halogen atom, a cyano group, a lower alkyl group, a halo-lower alkyl group, a hydroxy-lower alkyl group, a hydroxy group, a lower alkoxy group, a halo-  
20 lower alkoxy group, a lower alkylamino group, a di-lower alkylamino group, a lower alkanoyl group and an aryl group;

E means a group represented by the following formulae (E1);

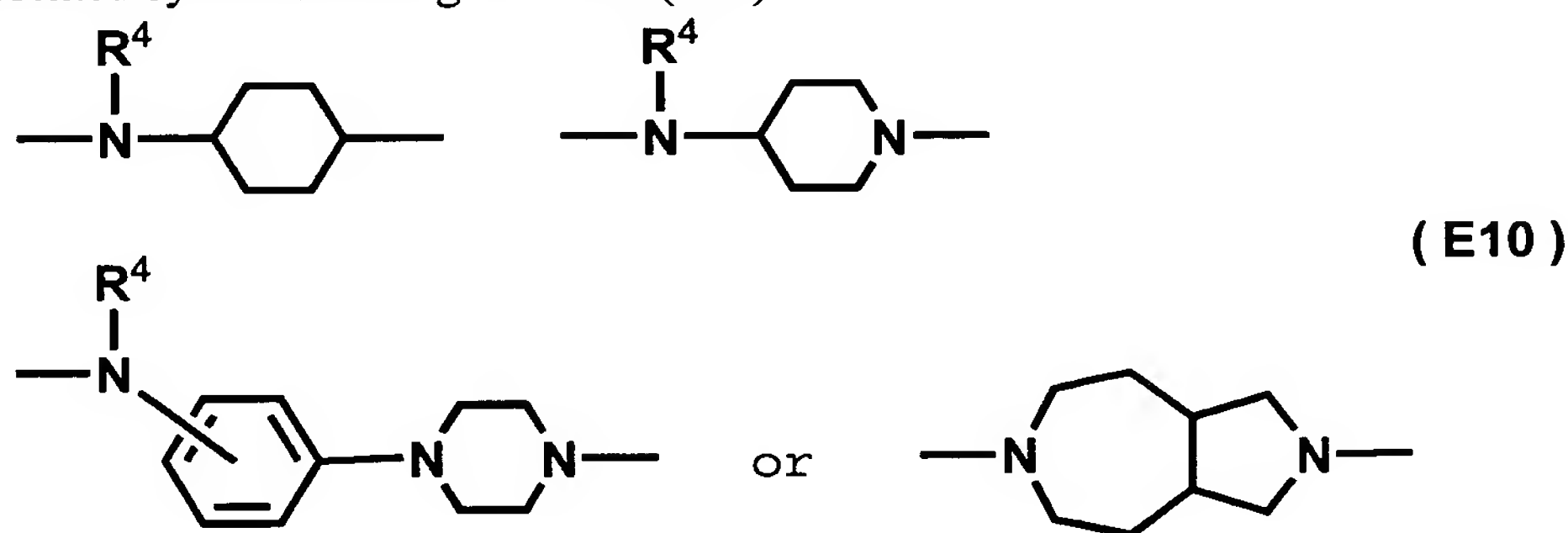


wherein  $R^4$  means a hydrogen atom, a lower alkyl group, an aralkyl group or an aryl group;  $Q^1$  and  $Q^2$  each independently mean a single bond, an oxygen atom, a carbonyl group or a group represented by  $-N(R^5)-$ ;  $R^1$  means a lower alkyl group or an aryl group, said aryl group optionally having a substituent(s) selected from the group consisting of a halogen atom, a cyano group, a lower alkyl group, a halo-lower alkyl group, a hydroxy-lower alkyl group, a hydroxy group, a lower alkoxy group, a halo-lower alkoxy group, a lower alkylamino group, a di-lower alkylamino group, a lower alkanoyl group and an aryl group, or means a lower alkylene group linked to arbitrary, linkable position(s) of E ; and  $R^2$  and  $R^3$  each independently mean a hydrogen atom or a lower alkyl group, or are taken together to mean a lower alkylene group which may be intervened by an oxygen atom, a sulfur atom or an imino group;  $R^5$  means a hydrogen atom or a lower alkyl group, or a salt or ester thereof.

2. The compound, or a salt or ester thereof as claimed in claim 1, wherein A and D, being the same or different, each is an unsubstituted methine group or a nitrogen atom, and either one of B and C is a methine group having a halo-lower alkyl group or a group represented by  $-Q^1-Ar^1$ , with the other being an unsubstituted methine group or a nitrogen atom.

3. The compound, or a salt or ester thereof as claimed in claim 1, wherein A, B and D each are an unsubstituted methine group, while C is a methine group having a halo-lower alkyl group or a group represented by  $-Q^1-Ar^1$ , or A is an unsubstituted methine group, and B and/or D is/are a nitrogen atom, while C is a methine group having a halo-lower alkyl group or a group represented by  $-Q^1-Ar^1$ .

4. The compound, or a salt or ester thereof as claimed in claim 1, wherein E is a group represented by the following formulae (E10):



wherein  $R^4$  means a hydrogen atom, a lower alkyl group, an aralkyl group or an aryl group.

5. The compound, or a salt or ester thereof as claimed in claim 1, wherein E is a group represented by the following formulae (E11):

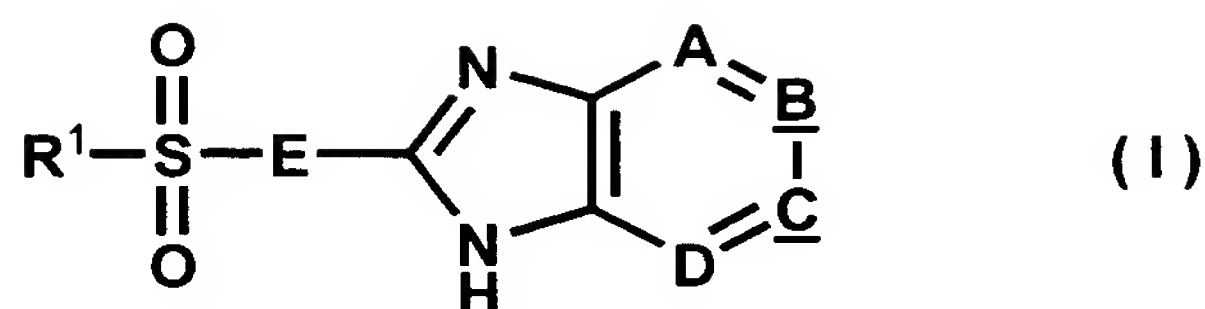


wherein R<sup>4</sup> means a hydrogen atom, a lower alkyl group, an aralkyl group or an aryl group.

5                      6.        The compound, or a salt or ester thereof as claimed in claim 1, wherein R<sup>1</sup> is a lower alkyl group.

7.        The compound as claimed in claim 1, which is  
 2-(trans-4-tert-butylsulfonylaminocyclohexyl)-5-(trifluoromethyl)benzimidazole,  
 10    2-(trans-4-tert-butylsulfonylaminocyclohexyl)-5-(2-methyltetrazol-5-yl)benzimidazole,  
 2-(trans-4-tert-butylsulfonylaminocyclohexyl)-5-phenylbenzimidazole,  
 2-(trans-4-tert-butylsulfonylaminocyclohexyl)-5-(2-fluorophenyl)imidazo[4,5-b]pyridine,  
 8-(trans-4-tert-butylsulfonylaminocyclohexyl)-2-(2-fluorophenyl)purine,  
 8-(cis-4-tert-butylsulfonylaminocyclohexyl)-2-(2-fluorophenyl)purine,  
 15    8-(trans-4-tert-butylsulfonylaminocyclohexyl)-2-(4-fluorophenyl)purine,  
 8-(cis-4-tert-butylsulfonylaminocyclohexyl)-2-(4-fluorophenyl)purine,  
 8-(trans-4-tert-butylsulfonylaminocyclohexyl)-2-phenylpurine,  
 8-(cis-4-tert-butylsulfonylaminocyclohexyl)-2-phenylpurine,  
 5-(2,4-difluorophenyl)-2-(trans-4-isopropylsulfonylaminocyclohexyl)imidazo[4,5-b]pyridine,  
 20    5-(2,4-difluorophenyl)-2-(cis-4-isopropylsulfonylaminocyclohexyl)imidazo[4,5-b]pyridine,  
 2-(trans-4-methylsulfonylaminocyclohexyl)-5-phenylbenzimidazole,  
 5-phenyl-2-(trans-4-p-tolylsulfonylaminocyclohexyl)benzimidazole,  
 2-(cis-4-methylsulfonylaminocyclohexyl)-5-phenylbenzimidazole,  
 5-phenyl-2-(cis-4-p-tolylsulfonylaminocyclohexyl)benzimidazole,  
 25    2-{trans-4-(N-methyl-tert-butylsulfonylamino)cyclohexyl}-5-phenylbenzimidazole,  
 2-(4-tert-butylsulfonylaminopiperidin-1-yl)-5-phenylbenzimidazole,  
 2-(4-tert-butylsulfonylaminopiperidin-1-yl)-5-(2-methyltetrazol-5-yl)benzimidazole,  
 2-(3-isopropylsulfonyl-cis-3,7-diazabicyclo[3.3.0]oct-7-yl)-5-phenylbenzimidazole,  
 2-(4-isopropylsulfonyl-cis-4,9-diazabicyclo[5.3.0]dec-9-yl)-5-phenylbenzimidazole,  
 30    2-(1-isopropylsulfonylpiperazin-4-yl)-5-phenylbenzimidazole,  
 8-{1-(2-methylsulfonylaminophenyl)piperazin-4-yl}-2-phenylpurine,  
 5-phenyl-2-{4-(N-phenylmethylsulfonylamino)piperidin-1-yl}-benzimidazole, or  
 2-{4-(1,1-dioxo-1λ<sup>6</sup>-isothiazolidin-2-yl)piperidin-1-yl}-5-phenylbenzimidazole, or a salt thereof.

35                      8.        A neuropeptide Y receptor antagonist agent comprising a compound of the general formula (I):

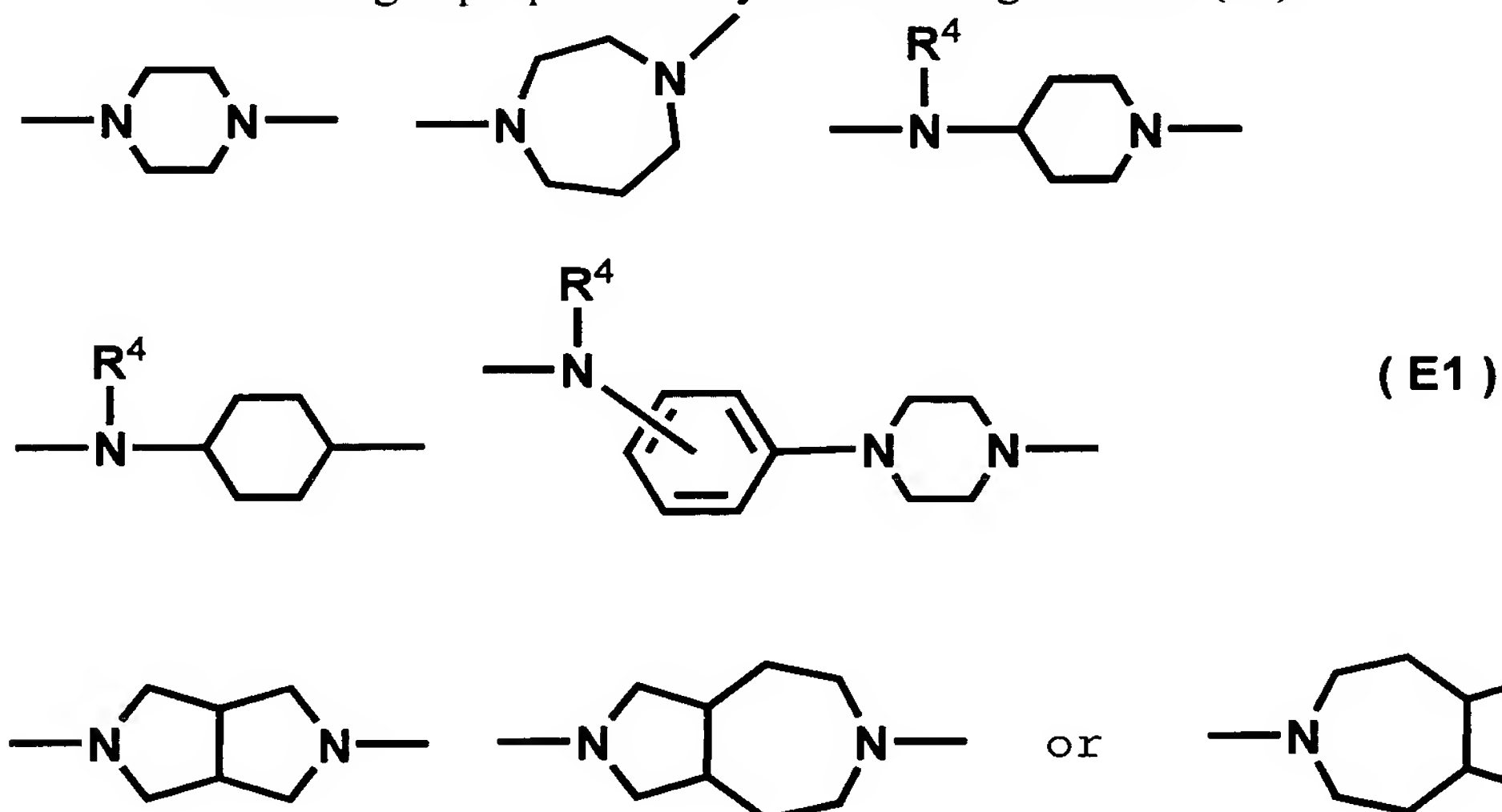


wherein A, B, C and D each independently mean a methine group or a nitrogen atom, said methine group optionally having a substituent(s) selected from the group consisting of a halogen atom, a cyano group, a lower alkyl group, a C<sub>3</sub>-C<sub>9</sub> cycloalkyl group, a halo-lower alkyl group, a hydroxy group, a lower alkoxy group, a halo-lower alkoxy group, a lower alkoxycarbonyl group, a lower alkylsulfonyl group, a lower alkylsulfonyloxy group, a group represented by -N(R<sup>2</sup>)R<sup>3</sup>, and a group represented by -Q<sup>1</sup>-Ar<sup>1</sup>, with at least one of A, B, C and D meaning the methine group;

Ar<sup>1</sup> means an aryl group or a heteroaryl group, each of which may optionally have a substituent(s) selected from the group consisting of a halogen atom, a nitro group, a hydroxy group, a lower alkyl group, a halo-lower alkyl group, a hydroxy-lower alkyl group, a C<sub>3</sub>-C<sub>6</sub> cycloalkyl group, a lower alkenyl group, a lower alkoxy group, a halo-lower alkoxy group, a lower alkylthio group, a lower alkylsulfonyl group, a carboxy group, a lower alkanoyl group, a lower alkoxycarbonyl group, a lower alkanoylamino group, and a group represented by -Q<sup>2</sup>-Ar<sup>2</sup>;

Ar<sup>2</sup> means an aryl group or a heteroaryl group, each of which may optionally have a substituent(s) selected from the group consisting of a halogen atom, a cyano group, a lower alkyl group, a halo-lower alkyl group, a hydroxy-lower alkyl group, a hydroxy group, a lower alkoxy group, a halo-lower alkoxy group, a lower alkylamino group, a di-lower alkylamino group, a lower alkanoyl group and an aryl group;

E means a group represented by the following formulae (E1):

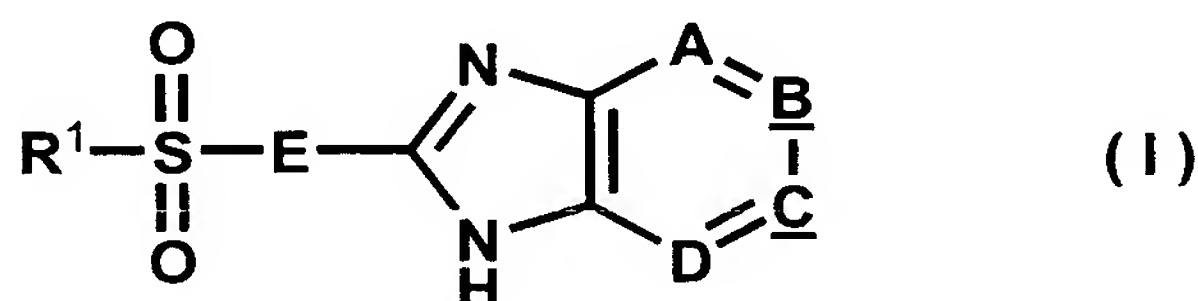


wherein R<sup>4</sup> means a hydrogen atom, a lower alkyl group, an aralkyl group or an aryl group; Q<sup>1</sup> and Q<sup>2</sup> each independently mean a single bond, an oxygen atom, a carbonyl group or a group represented by -N(R<sup>5</sup>)-; R<sup>1</sup> means a lower alkyl group or an aryl group, said aryl group optionally having a substituent(s) selected from the group consisting of a halogen atom, a cyano group, a lower alkyl

group, a halo-lower alkyl group, a hydroxy-lower alkyl group, a hydroxy group, a lower alkoxy group, a halo-lower alkoxy group, a lower alkylamino group, a di-lower alkylamino group, a lower alkanoyl group and an aryl group, or means a lower alkylene group linked to arbitrary, linkable position(s) of E ; and R<sup>2</sup> and R<sup>3</sup> each independently mean a hydrogen atom or a lower alkyl group, or are taken together to mean a lower alkylene group which may be intervened by an oxygen atom, a sulfur atom or an imino group; R<sup>5</sup> means a hydrogen atom or a lower alkyl group, or a salt or ester thereof as an active ingredient.

9. A pharmaceutical composition comprising a compound of the general formula

(I):



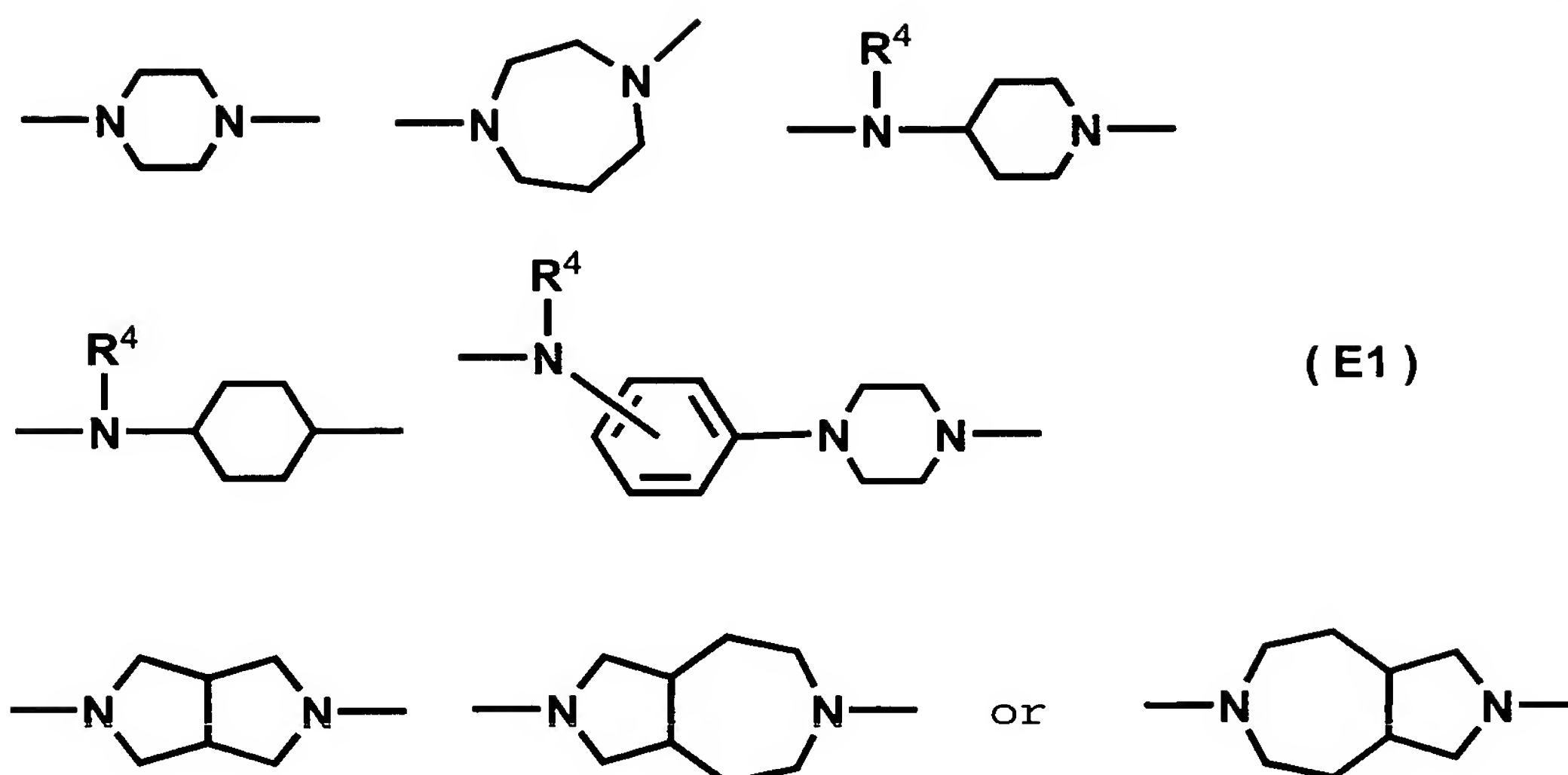
wherein A, B, C and D each independently mean a methine group or a nitrogen atom, said methine group optionally having a substituent(s) selected from the group consisting of a halogen atom, a cyano group, a lower alkyl group, a C<sub>3</sub>-C<sub>9</sub> cycloalkyl group, a halo-lower alkyl group, a hydroxy group, a lower alkoxy group, a halo-lower alkoxy group, a lower alkoxycarbonyl group, a lower alkylsulfonyl group, a lower alkylsulfonyloxy group, a group represented by -N(R<sup>2</sup>)R<sup>3</sup>, and a group represented by -Q<sup>1</sup>-Ar<sup>1</sup>, with at least one of A, B, C and D meaning the methine group;

Ar<sup>1</sup> means an aryl group or a heteroaryl group, each of which may optionally have a substituent(s) selected from the group consisting of a halogen atom, a nitro group, a hydroxy group, a lower alkyl group, a halo-lower alkyl group, a hydroxy-lower alkyl group, a C<sub>3</sub>-C<sub>6</sub> cycloalkyl group, a lower alkenyl group, a lower alkoxy group, a halo-lower alkoxy group, a lower alkylthio group, a lower alkylsulfonyl group, a carboxy group, a lower alkanoyl group, a lower alkoxycarbonyl group, a lower alkanoylamino group and a group represented by -Q<sup>2</sup>-Ar<sup>2</sup>;

Ar<sup>2</sup> means an aryl group or a heteroaryl group, each of which may optionally have a substituent(s) selected from the group consisting of a halogen atom, a cyano group, a lower alkyl group, a halo-lower alkyl group, a hydroxy-lower alkyl group, a hydroxy group, a lower alkoxy group, a halo-lower alkoxy group, a lower alkylamino group, a di-lower alkylamino group, a lower alkanoyl group and an aryl group;

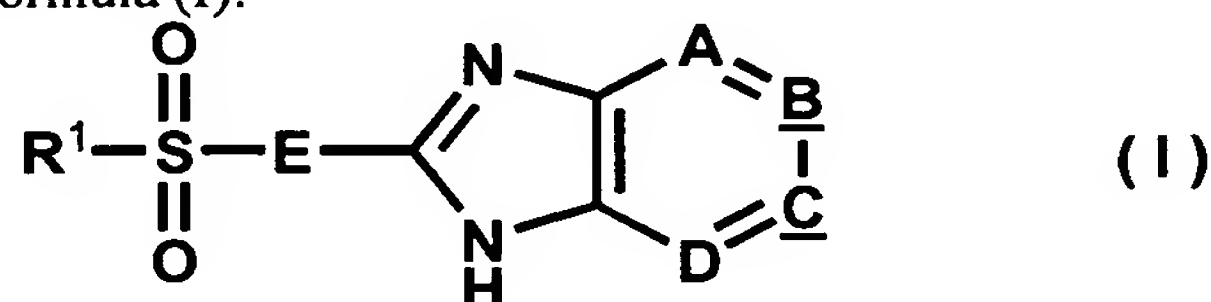
E means a group represented by the following formulae (E1):





wherein  $R^4$  means a hydrogen atom, a lower alkyl group, an aralkyl group or an aryl group;  $Q^1$  and  $Q^2$  each independently mean a single bond, an oxygen atom, a carbonyl group or a group represented by  $-N(R^5)-$ ;  $R^1$  means a lower alkyl group or an aryl group, said aryl group optionally having a substituent(s) selected from the group consisting of a halogen atom, a cyano group, a lower alkyl group, a halo-lower alkyl group, a hydroxy-lower alkyl group, a hydroxy group, a lower alkoxy group, a halo-lower alkoxy group, a lower alkylamino group, a di-lower alkylamino group, a lower alkanoyl group and an aryl group, or means a lower alkylene group linked to arbitrary, linkable position(s) of E ; and  $R^2$  and  $R^3$  each independently mean a hydrogen atom or a lower alkyl group, or are taken together to mean a lower alkylene group which may be intervened by an oxygen atom, a sulfur atom or an imino group;  $R^5$  means a hydrogen atom or a lower alkyl group, or a salt or ester thereof as an active ingredient.

10. An agent for the treatment of bulimia, obesity or diabetes, which comprises a compound of the general formula (I):



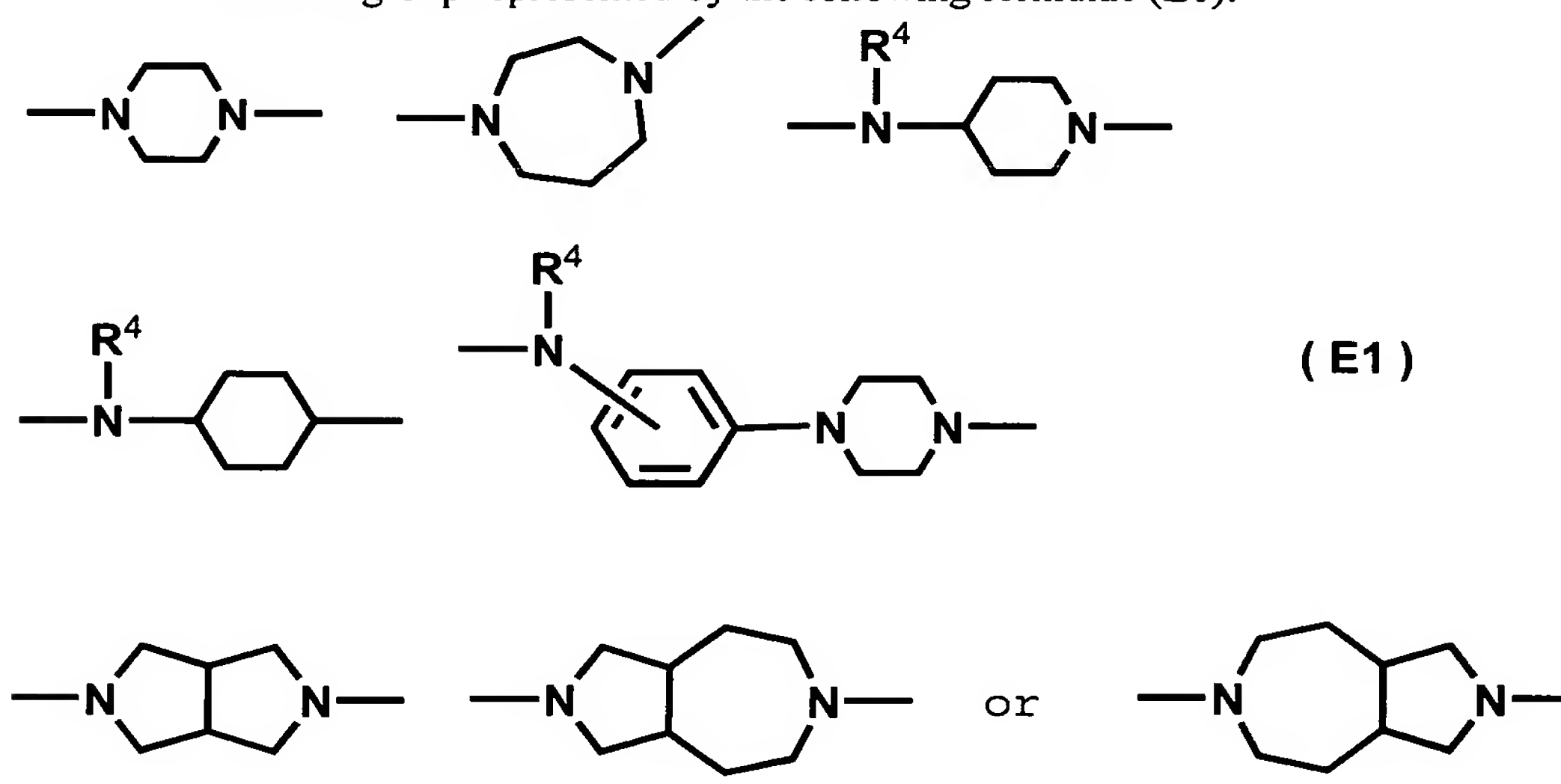
wherein A, B, C and D each independently mean a methine group or a nitrogen atom, said methine group optionally having a substituent(s) selected from the group consisting of a halogen atom, a cyano group, a lower alkyl group, a C<sub>3</sub>-C<sub>9</sub> cycloalkyl group, a halo-lower alkyl group, a hydroxy group, a lower alkoxy group, a halo-lower alkoxy group, a lower alkoxycarbonyl group, a lower alkylsulfonyl group, a lower alkylsulfonyloxy group, a group represented by  $-N(R^2)R^3$ , and a group represented by  $-Q^1-Ar^1$ , with at least one of A, B, C and D meaning the methine group;

$Ar^1$  means an aryl group or a heteroaryl group, each of which may optionally have a substituent(s) selected from the group consisting of a halogen atom, a nitro group, a hydroxy group, a lower alkyl group, a halo-lower alkyl group, a hydroxy-lower alkyl group, a C<sub>3</sub>-C<sub>6</sub> cycloalkyl group, a

lower alkenyl group, a lower alkoxy group, a halo-lower alkoxy group, a lower alkylthio group, a lower alkylsulfonyl group, a carboxy group, a lower alkanoyl group, a lower alkoxycarbonyl group, a lower alkanoylamino group and a group represented by  $-Q^2-Ar^2$ ;

- 5  $Ar^2$  means an aryl group or a heteroaryl group, each of which may optionally have a substituent(s) selected from the group consisting of a halogen atom, a cyano group, a lower alkyl group, a halo-lower alkyl group, a hydroxy-lower alkyl group, a hydroxy group, a lower alkoxy group, a halo-lower alkoxy group, a lower alkylamino group, a di-lower alkylamino group, a lower alkanoyl group and an aryl group;

E means a group represented by the following formulae (E1):



10 wherein  $R^4$  means a hydrogen atom, a lower alkyl group, an aralkyl group or an aryl group;  $Q^1$  and  $Q^2$  each independently mean a single bond, an oxygen atom, a carbonyl group or a group represented by  $-N(R^5)-$ ;  $R^1$  means a lower alkyl group or an aryl group, said aryl group optionally having a substituent(s) selected from the group consisting of a halogen atom, a cyano group, a lower alkyl group, a halo-lower alkyl group, a hydroxy-lower alkyl group, a hydroxy group, a lower alkoxy group, a halo-lower alkoxy group, a lower alkylamino group, a di-lower alkylamino group, a lower alkanoyl group and an aryl group, or means a lower alkylene group linked to arbitrary, linkable position(s) of E ; and  $R^2$  and  $R^3$  each independently mean a hydrogen atom or a lower alkyl group, or are taken together to mean a lower alkylene group which may be intervened by an oxygen atom, a sulfur atom or an imino group;  $R^5$   
 15 means a hydrogen atom or a lower alkyl group, or a salt or ester thereof as an active ingredient.  
 20